



IFW 2876
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re original application of:

Applicants : Mark C. Schmidt, et al.
Application Serial No.: 10/042,755
Filing Date: : November 13, 2002
Title: AUTOMATICALLY-ACTIVATED HAND-SUPPORTABLE
MULTI-MODE LASER SCANNING BAR CODE SYMBOL
READING SYSTEM
Examiner : Jared Fureman
Group Art Unit : 2876
Attorney Docket No. : 108-181USA000

Honorable Commissioner of Patents
and Trademarks
Washington, DC 20231

RESPONSE TO OFFICE ACTION MAILED APRIL 7, 2004

Sir:

In response to the Office Action mailed April 7, 2004, Applicants hereby submit the following amendments to the same:

AMENDMENT OF THE SPECIFICATION:

Please amend the Specification as follows:

On Page 13, after the 1st full paragraph, insert the following paragraph:

Figures 4E and 4F set forth exemplary construction parameters used in the laser scanning platform of the illustrative embodiment;

On Page 15, after the 3rd full paragraph, insert the following paragraphs:

Figure 7D is a schematic diagram of an illustrative embodiment of the SOS Photoreceiving Circuit and Timing Signal Generator Circuit used in the system shown in Figure 6;

Figure 7E is a schematic diagram of an illustrative embodiment of VLD Duty Cycle Control Circuitry used in the system of Figure 6, to generate timing signals and control the power level of a laser light source during system operation;

On Page 19, amend the seventh paragraph as follows:

Figs. ~~15F~~ 15E through 15I are schematic representations of the mirror elements employed in the stationary beam folding array in the omni-directional laser scanning engine of Fig. 13.

On Page 39, amend the last paragraph as follows:

Figs. 4A and 4B illustrate an exemplary laser scanning platform that employs a mechanism that controls the duty cycle of a laser light source (e.g., laser diode) to selectively produce an omni-directional scanning pattern or the single line scanning pattern. As shown in Fig. 4A, the laser scanning platform 53' comprises an assembly of subcomponents assembled upon an optical bench 34 with respect to a central longitudinal reference plane 35. The optical bench is mounted to the housing 161' of the device 151' by posts 42. This subcomponent assembly includes a scanning polygon 36 having four light reflective surfaces (e.g., facets) 36A, 36B, 36C and 36D, each disposed at an tilt angle β with respect to the rotational axis of the polygon as shown in Fig. 5A 4E. An electrical motor is mounted on the optical bench 34 and has a rotatable shaft on which polygon 36 is mounted for rotation therewith. An array of stationary mirrors 38A, 38B, 38C, 38D and 38E is fixedly mounted with supports (not shown) to the optical bench 34 at twist and bend angles α , θ as shown in Figs. 4A and ~~5B~~ 4E.